Abstract: Field experiments were conducted at Tamil Nadu Agricultural University, Coimbatore to evaluate the efficiency of metamitron 70 SC and ethofumesate 50 SC for the control of weeds and to increase the productivity in sugarbeet. The treatments consisted of two doses of new herbicide formulation metamitron 70 SC (2.00 and 4.00 kg ha\(^{-1}\)) and ethofumesate 50 SC (1.00 and 2.00 kg ha\(^{-1}\)) at two weed leaf stage, two doses of metamitron 70 SC (3.50 and 7.00 kg ha\(^{-1}\)) and ethofumesate 50 SC (0.99 and 1.98 kg ha\(^{-1}\)) in three splits at 2, 4-6 and 8-10 weed leaf stages, combination of ethofumesate 50 SC and metamitron 70 SC in two doses (0.50 + 0.98 and 1.00 + 0.98 kg ha\(^{-1}\)) at two weed leaf stage compared with recommended dose of PE pretilachlor (50 EC 0.50 kg ha\(^{-1}\)) and unweeded control. The results revealed that the lowest total weed dry weight and higher weed control efficiency were recorded in pre emergence application of Pretilachlor 50 EC 0.50 kg ha\(^{-1}\) followed by Metamitron 70 SC 7.00 kg ha\(^{-1}\) in three splits. There was not any phytotoxic symptom observed in sugarbeet in any of the herbicides at different doses. The yield parameters and root yield of sugarbeet were higher in PE pretilachlor 50 EC 0.50 kg ha\(^{-1}\). However, it was at par with application of metamitron 70 SC in three splits at both doses (3.50 or 7.00 kg ha\(^{-1}\)).

Key Words: Sugarbeet, Metamitron, Ethofumesate, Weed control efficiency, Root yield


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